



Application No.: 09/616,477
Filed: July 14, 2000
Group Art Unit: Not Yet Assigned

On page 23, line 25, following "control and data over Ethernet", please delete "32" and insert therefor - - 41 - -.

In the Drawings

Please amend Figures 9, 16c, 17, 18, 19, 20, 23, 26, 35, and 55 as shown in red in the attached drawings.

REMARKS

Applicant respectfully requests that the Examiner enter the amendments set forth above prior to examining the above-referenced application.

Applicant amends the specification and Figures 9, 16c, 17, 18, 19, 20, 23, 26, 35, and 55 to correct typographical errors. Specifically, reference numeral 32 is a duplicate. Therefore applicant replaces reference numeral 32 with reference numeral 41 in both the specification and Figures 9, 16c, 17, 18, 19, 20, 23, and 26. Applicant adds reference numeral 41 to the connection between NMS 60 and the network device 540 in Figure 35. Reference numeral 838 is added to the input marked "Alt. Input from other EX CTS" in Figure 55. Both reference numeral 41 and reference numeral 838 are referred to in the specification and used in other figures to designate the same part of the invention. No new matter is added by these amendments.

In addition, Applicant amends Figure 55 to remove an extraneous line section to indicate the correct connection of the *output* 770 to the Alt. *output* to other EX CTS. Support for this amendment can be found throughout the specification, for example, on page 129, lines 15-17. In particular, the specification at page 129 recites that "the output 770 (marked "Alt. Output to other EX CTS") of timing module 76 may be provided to the other EX CTS and received as input 838 (marked "Alt. Input from other EX CTS"). Thus, no new matter is added by this amendment.



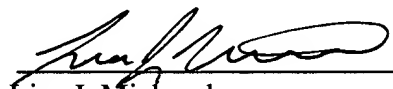
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For the Examiner's convenience, Applicant encloses a copy of page 23 of the specification in which the above corrections are indicated in red.

The Examiner is urged to telephone the undersigned Attorney for Applicant in the event that such communication is deemed to expedite prosecution of this matter.

Respectfully submitted,

Date: November 20, 2000



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modify logical model 280 (Fig. 3) to include: a new entry in the PMD file (or a new PMD file) and, where necessary, new device drivers and applications. Because the MCD software, which resides in the kernel, will not need to be modified, the new applications and device drivers and the new DDL files (reflecting the new PMD file) for the configuration database and NMS database are downloaded and upgraded (as described below) without re-booting the computer system.

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Network Management System (NMS):

Referring to Fig. 9, a user of computer system 10 works with network management / system (NMS) software 60 to configure computer system 10. In the embodiment described below, NMS 60 runs on a personal computer or workstation 62 and communicates with central processor 12 over Ethernet network 32⁴¹ (out-of-band). Instead, the NMS may communicate with central processor 12 over data path 34 (Fig. 1, in-band). Alternatively (or in addition as a back-up communication port), a user may 15 communicate with computer system 10 through a terminal connected to a serial line 66 connecting to the data or control path using a command line interface (CLI) protocol. Instead, NMS 60 could run directly on computer system 10 provided computer system 10 has an input mechanism for the user.

20 NMS 60 establishes an NMS database 61 on work station 62 using a DDL file corresponding to the NMS database and downloaded from persistent storage 21 in computer system 10. The NMS database mirrors the configuration database through an active query feature (described below). In one embodiment, the NMS database is an Oracle database from Oracle Corporation in Boston, Massachusetts. The NMS and 25 central processor 12 pass control and data over Ethernet 32⁴¹ using, for example, the Java Database Connectivity (JDBC) protocol. Use of the JDBC protocol allows the NMS to communicate with the configuration database in the same manner that it communicates with its own internal storage mechanisms, including the NMS database. Changes made to the configuration database are passed to the NMS database to insure that both 30 databases store the same data. This synchronization process is much more efficient and timely than older methods that require the NMS to periodically poll the network device to